## **ABSTRACT**

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Data is distributed over a network using a first network protocol, for example, a non-reliable protocol. The non-reliable protocol (e.g., multicast) is used to distribute the data from a host system to multiple target systems with reduced overhead as compared to typical reliable protocols. Portions of the data that are not received by one or more of the target systems are requested and transmitted via a second network protocol (e.g., hypertext transport protocol, or HTTP). In one embodiment, the target systems maintain a checkpoint management service that determines the portions of data not received. In an alternative embodiment, target systems evaluate data received to determine whether a portion of the transmitted data was not received.